C. SAOUD

1647

164

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TECH CENTER 1600/2900

RAW SEQUENCE LISTING   DATE: 01/02/2001
PATENT APPLICATION: US/09/349,954A   TIME: 10:27:15

Input Set : A:\ES.txt
Output Set: N:\CRF3\01022001\I349954A.raw

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 1  <110> APPLICANT: Hayward, Nicholas K.
 5         Achen, Gunther
 6         Grimmond, Sean
 7         Nordbaskjold, Magnus
 8         Larsson, Catharina
10  <120> TITLE OF INVENTION: A NOVEL GROWTH FACTOR AND A GENETIC SEQUENCE ENCODING
11         SAME
13  <130> FILE REFERENCE: Dav. Col. Case
15  <140> CURRENT APPLICATION NUMBER: 09/349,954A
16  <141> CURRENT FILING DATE: 1999-07-08
18  <150> PRIOR APPLICATION NUMBER: 08/763,588
19  <171> PRIOR FILING DATE: 1996-09-12
21  <160> NUMBER OF SEQ ID NOS: 22
23  <170> SOFTWARE: PatentIn Ver. 2.1
25  <210> SEQ ID NO: 1
26  <211> LENGTH: 549
27  <212> TYPE: DNA
28  <213> ORGANISM: Nucleotide Sequence of VEGF165
30  <220> FEATURE:
31  <221> NAME/KEY: CDS
32  <222> LOCATION: (17)..(589)
34  <400> SEQUENCE: 1
35  tcggacctcc gaaacc atg aac ttt ctg ctg tct tgg gtg cat tgg agc ctt   52
37                  Met Asn Phe Leu Leu Ser Trp Val His Trp Ser Leu
38                   1               5                   10
40  gcc ttg ctg ctc tac ctc cac cat gcc aag tgg tcc cag gct gca ccc   100
42  Ala Leu Leu Leu Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro
43              15                  20                  25
45  atg gca gaa gga gga ggg cag aat cat cac gaa gtg gtg aag ttc atg   148
47  Met Ala Glu Gly Gly Gly Gln Asn His His Glu Val Val Lys Phe Met
48          30                  35                  40
50  gat gtc tat cag cgc agc tac tgc cat cca atc gag acc ctg gtg gac   196
52  Asp Val Tyr Gln Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp
53      45                  50                  55                  60
55  atc ttc cag gag tac cct gat gag atc gag tac atc ttc aag cca tcc   244
57  Ile Phe Gln Glu Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser
58                  65                  70                  75
60  tgt gtg ccc ctg atg cga tgc ggg ggc tgc tgc aat gac gag ggc ctg   292
62  Cys Val Pro Leu Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu
63              80                  85                  90
65  gag tgt gtg ccc act gag gag tcc aac atc acc atg cag att atg cgg   340
67  Glu Cys Val Pro Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Arg
68          95                  100                 105
70  atc aaa cct cac caa ggc cag cac ata gga gag atg agc ttc cta cag   388
72  Ile Lys Pro His Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln
73      110                 115                 120
75  cac aac aaa tgt gaa tgc aga cca aag aaa gat aga gca aga caa gaa   436
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RAW SEQUENCE LISTING                    DATE: 01/02/2001
PATENT APPLICATION:   US/09/349,954A    TIME: 10:27:33

Input Set : A:\ES.txt
Output Set: N:\CRF3\01022001\1349954A.raw
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77 His Asn Lys Cys Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu
78 125                 130                 135                 140
80 aat ccc tgt ggg cct tgc tca cag cgg aag cat ttg ttt gta caa      184
81 Asn Pro Cys Gly Pro Cys Ser Gln Arg Arg His Leu Phe Val Gln
83                     115                 190
85 gat ccc gag acg tgt aaa tgt tct tgt aaa aac aca gac tcg cgt tgc  532
87 Asp Pro Glu Thr Cys Lys Cys Ser Cys Lys Asn Thr Asp Ser Arg Cys
48                     165                 170
90 aag gcg agg cag ctt gag tta aac gaa cgt act tgc aga tgt gac aag  580
92 Lys Ala Arg Gln Leu Glu Leu Asn Glu Arg Thr Cys Arg Cys Asp Lys
93           175                 180                 185
95 ccg agg cgg tgaccggac aggaggaaag aacctcctc aacgttcgg              629
97 Pro Arg Arg
98       190
100 gaacaaatc tctcaccaga                                              619
103 <210> SEQ ID NO: 2
105 <211> LENGTH: 191
106 <212> TYPE: PRT
107 <213> ORGANISM: Nucleotide Sequence of VEGF165
109 <400> SEQUENCE: 2
110 Met Asn Phe Leu Leu Ser Trp Val His Trp Ser Leu Ala Leu Leu Leu
111  1                 5                  10                  15
113 Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro Met Ala Glu Gly
114           20                 25                 30
116 Gly Gly Gln Asn His His Glu Val Val Lys Phe Met Asp Val Tyr Gln
117           35                 40                 45
119 Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp Ile Phe Gln Glu
120      50                 55                 60
122 Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser Cys Val Pro Leu
123  65                 70                 75                 80
125 Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu Glu Cys Val Pro
126                85                 90                 95
128 Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Arg Ile Lys Pro His
129           100                105                 110
131 Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln His Asn Lys Cys
132           115                120                 125
134 Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu Asn Pro Cys Gly
135      130                135                 140
137 Pro Cys Ser Glu Arg Arg Lys His Leu Phe Val Gln Asp Pro Gln Thr
138 145                150                155                 160
140 Cys Lys Cys Ser Cys Lys Asn Thr Asp Ser Arg Cys Lys Ala Arg Gln
141                165                170                 175
143 Leu Glu Leu Asn Glu Arg Thr Cys Arg Cys Asp Lys Pro Arg Arg
144           180                185                 190
148 <210> SEQ ID NO: 3
149 <211> LENGTH: 1094
150 <212> TYPE: DNA
151 <213> ORGANISM: Nucleotide Sequence of SOM175
153 <220> FEATURE:
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RAW SEQUENCE LISTING   DATE: 01/02/2001
PATENT APPLICATION: US/09/349,954A   TIME: 10:27:13

Input Set : A:\ES.txt
Output Set: N:\CRF3\01022001\I349954A.raw

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154 <221> NAME/KEY: CDS
    <222> LOCATION: (5)..(624)
    <??> <400> SEQUENCE: 4

                                                                        47
160    Met Ser Pro Leu Leu Arg Arg Ser Ser Ser Ala Ala Leu Leu Gln
                                        10                      15

                                                                        95
       Leu Ala Pro Arg Leu Ala Pro Val Ser Pro Ser Asp Ala Pro Gly His
180         20                      25                      40

174                                                                    143
      Gln Arg Lys Val Val Ser Trp Ile Asp Val Ile Thr Arg Ala Thr Cys
171         45                      50                      55

172                                                                    191
      Gln Pro Arg Gly Val Val Val Pro Ser Thr Val Glu Leu Met Gly Thr
175         50                      55                      60

175                                                                    239
180   Val Ala Lys Gln Leu Val Pro Ser Cys Val Thr Gln Arg Cys Gly
181         65                      70                      75

184                                                                    287
187   Gly Cys Cys Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln His
186         80                      85                      90              95

186                                                                    335
190   Gln Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu
191         100                     105                     110

195                                                                    383
      Gly Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys
196         115                     120                     125

198                                                                    431
200   Lys Lys Asp Ser Ala Val Lys Pro Asp Arg Ala Ala Thr Pro His His
201         130                     135                     140

205                                                                    479
205   Arg Pro Gln Pro Arg Ser Val Pro Gly Trp Asp Ser Ala Pro Gly Ala
206         145                     150                     155

208                                                                    527
210   Pro Ser Pro Ala Asp Ile Thr His Pro Thr Pro Ala Pro Gly Pro Ser
211         160                     165                     170             175

213                                                                    575
215   Ala His Ala Ala Pro Ser Thr Thr Ser Ala Leu Thr Pro Gly Pro Ala
216         180                     185                     190

218                                                                    623
220   Ala Ala Ala Ala Asp Ala Ala Ala Ser Ser Val Ala Lys Gly Gly Ala
221         195                     200                     205

224  tgggctcaa cccagacacc tgcaaggtcc ggaagctccg aaggtgacac atggcttttc 683
226  agactcagca gggtgacttg cctcagaggc tatatcccag tgggggaaca aagagggagc 743
229  tggtaaaaaa cagccaaggc cccaaggcct cagcccaggc agaagctgct ctaggacctg 803
232  agcactcaag agggctcttc tgtcatcccc tgtctcccctg aaggccatcat caaacagtac 863
235  agagtgaca gaggagactg gggggcagca aagagggtca catacccagct caggggagaa 923
238  tgcaagtactg tctcaattta taaccactct gtgcaagtaa gcatcttaca actggctctt 983
241  cctccctca ctaagaagac cccaacctct gcataatggg attggggctt tggtacaaga 1043
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RAW SEQUENCE LISTING   DATE: 01/02/2001
PATENT APPLICATION: US/09/349,954A   TIME: 19:27:1.

Input Set : A:\ES.txt
Output Set: N:\CRF3\01022001\1349954A.raw

244 tctgtctcac... cacctaa taaaaaagat agaaggaaaa aaaaaaaaaa a   1699
245 210 PRO ID NO: 4
246 211 LENGTH: 207
... 212 TYPE: DNA
248 213 ORGANISM: Nucleotide Sequence of SOH175
... 400 SEQUENCE: 4
...   Met ... Arg Leu Leu Ala Leu Ala Ala Leu Leu Leu
...   1   5   10
...   Leu Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gln His Gln
...   20   25   30
...   Gln Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
...   40   45
...   Met Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
...   55   60
...   Glu Lys Glu Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gln
...   65   70   75   80
...   Cys Pro Ser Asp Asp Gln Leu Glu Cys Val Pro Thr Gly Gln His Gln
...   85   90   95
...   Val Thr Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu Gly
...   100   105   110
...   Glu Met Ser Leu Glu Gln His Ser Gln Cys Glu Cys Arg Pro Lys Lys
...   115   120   125
...   Lys Asp Ser Ala Val Lys Pro Asp Arg Ala Ala Thr Pro His His Arg
...   130   135   140
...   Pro Gln Pro Arg Ser Val Pro Gly Trp Asp Ser Ala Pro Gly Ala Pro
...   145   150   155   160
...   Ser Pro Ala Asp Ile Thr His Pro Thr Pro Ala Pro Gly Pro Ser Ala
...   165   170   175
...   His Ala Ala Pro Ser Thr Thr Ser Ala Leu Thr Pro Gly Pro Ala Ala
...   180   185   190
...   Ala Ala Ala Asp Ala Ala Ala Ser Ser Val Ala Lys Gly Gly Ala
...   195   200   205
295 210 SEQ ID NO: 5
296 211 LENGTH: 993
297 212 TYPE: DNA
298 213 ORGANISM: Nuc. Seq. of SOH175 Absent Exon 6
300 220 FEATURE:
301 221 NAME/KEY: CDS
303 222 LOCATION: (3)..(567)
304 400 SEQUENCE: 5
305 cc atg agc cct ctg ctc cgc cgc ctg ctg ctc gcc gca ctc ctg cag   47
307   Met Ser Pro Leu Leu Arg Arg Leu Leu Leu Ala Ala Leu Leu Gln
308 1   5   10   15
310 ctg gcc ccc gcc cag gcc cct gtc tcc cag cct gat gcc cct cag cac   95
312 Leu Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gln His
314   20   25   30
315 cag agg aaa gtg gtg tca tgg ata gat gtg tat act cgc gct acc tgc   143
317 Gln Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys
318   35   40   45

RAW SEQUENCE LISTING   DATE: 01/02/2001
PATENT APPLICATION: US/09/349,954A   TIME: 10:27:13

Input Set 1: A:\ES.txt
Output Set: N:\CRF3\01022001\I349954A.raw

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...cca ccc cag gag gtg gtg gtg cct ttg act ctg gag ctc atg ggc acc   191
512 Gln Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr
                                    55                      60
... gtt gca aag caa ... gtt ccc tca ... gtt ... gtc cag agg tgt ...   239
... Val Ala Lys Gln Leu Val Pro Ser ... s Val Thr Val Gln Arg Cys Gly
                          70                      75
... tgc ... tac cct gac gat ggc cta gag tgt gta ccc ttt ...g cag cac   287
... Cys ... s Pro Asp Asp Gly Leu Glu Cys Val Pro Thr Gly Gln ... s
       80                      85                      90              95
... cta gtt cgg atg cag atc ctc atg atc cga tac ccg agc agt cag cta   335
... Leu Val Arg Met Gln Ile Leu Met Ile Arg Tyr Pro Ser Ser Gln Leu
              100                     105                     110
... cag gag atg tcc ...g gag gag cac agc cag tgt gag tgc aga cct aaa   383
342 Gln Glu Met Ser Leu Glu Glu His Ser Gln Cys Glu Cys Arg Pro Lys
                      115                     120                     125
... aag aag gac agt gct gtg aag cca gat agc ccc agg ccc ctc tgc cca   431
... Lys Lys Asp Ser Ala Val Lys Pro Asp Ser Pro Arg Pro Leu Cys Pro
              130                     135                     140
... ... tgc acc cag cac cac cag cgc cct gac ccc cag acc tgc cgc tgc   479
... ... Cys Thr Gln His His Gln Arg Pro Asp Pro Arg Thr Cys Arg Cys
       145                     150                     155
... tgc tac cga cgc cgc agc ttc ctc cat tgc cga agg cag ggc tta gag   527
... ... s Cys Arg Arg Arg Ser Phe Leu Arg Cys Gln Arg Gly Leu Glu
       160                     165                     170              175
360 ctc aac cca gac acc tgc agg tgc cgg aag ctg cga agg tgacacatgg   576
362 Leu Asn Pro Asp Thr Cys Arg Cys Arg Lys Leu Arg Arg
                      180                     185
365 cttttcagac tcagcaqggt gacttccctc agaggctata tcccagtggg ggaacaaagg 636
368 ggagcctggt aaaaaacagc caagcccca agacctcagc ccaggcagaa gctactctag 696
371 gacctgggcc tctcagaggg ctcttctgcc atcccttgtc tccctgagge catcatcaaa 756
374 cuggacaqga ttgqaqqqa aqactgggga acaacaaaq qqgtcacata ccaqctcagg 816
377 gqaqaatgqa qtactatctc aqtttctaac cactctqtqc aagtaaqcat cttacaactg 876
380 qctcttcctc ccctcactaa qaaqaccca accctqcat aatqaaatct qgqcttqgt 936
383 acaaqaactg tqacccccaa ccctqataaa aqaqatgqaa qgaaaaaaa aaaaaaa     993
387 <210> SEQ ID NO: 6
388 <211> LENGTH: 188
389 <212> TYPE: PRT
390 <213> ORGANISM: Nucl. Seq. of SOM175 Absent Exon 6
392 <400> SEQUENCE: 6
393 Met Ser Pro Leu Leu Arg Arg Leu Leu Leu Ala Ala Leu Leu Gln Leu
394   1               5                   10                  15
396 Ala Pro Ala Gln Ala Pro Val Ser Gln Pro Asp Ala Pro Gly His Gln
397         20                  25                  30
399 Arg Lys Val Val Ser Trp Ile Asp Val Tyr Thr Arg Ala Thr Cys Gln
400         35                  40                  45
402 Pro Arg Glu Val Val Val Pro Leu Thr Val Glu Leu Met Gly Thr Val
403         50                  55                  60
405 Ala Lys Gln Leu Val Pro Ser Cys Val Thr Val Gln Arg Cys Gly Gly
406   65                  70                  75                  80
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VERIFICATION SUMMARY   DATE: 01/02/2001
PATENT APPLICATION: US/09/349,954A   TIME: 10:27:14

Input Set : A:\ES.txt
Output Set: N:\CRF3\01022001\I349954A.raw